



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0659/S-96, REVISION 3

East Building, PHH-23
1200 New Jersey Avenue SE
Washington, D.C. 20590

This certifies that the source described has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Model X.20 (Manufactured on or after March 3, 1980).
2. Source Description - Annular double encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 33.5 mm (1.32 in.) in diameter and 19.4 mm (0.76 in.) in length. Minimum wall thickness of the outer encapsulation is 0.4 mm (0.016 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA11120, Rev. B (2 pages).
3. Radioactive Contents - No more than 74.0 GBq (2.0 Ci) of Americium-241. The Am-241 is in the form of an oxide mixed with a beryllium powder and pressed into a solid pellet.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations¹ shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on October 31, 2013.

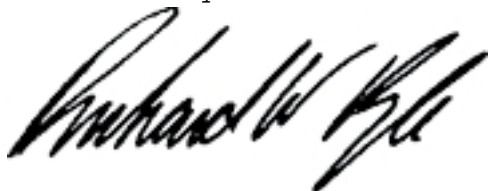
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

CERTIFICATE USA/0659/S-96, REVISION 3


This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the September 29, 2008 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



Oct 16 2008

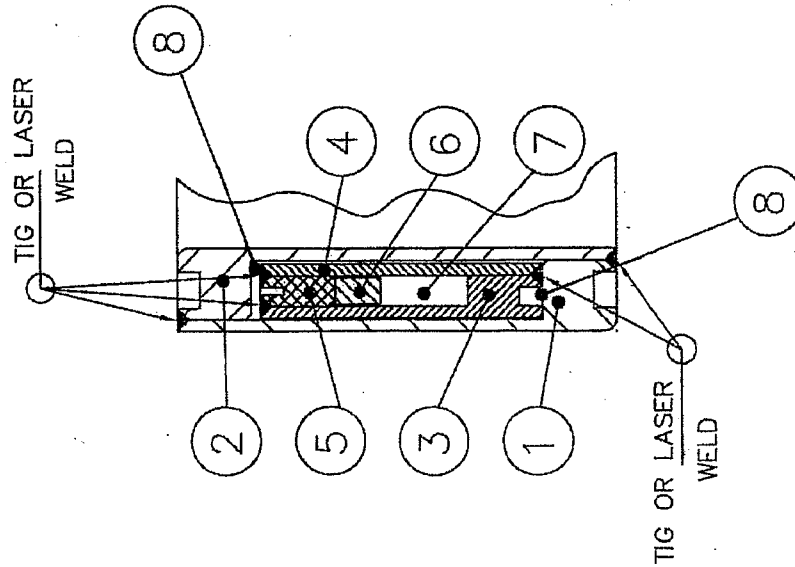
(DATE)

 Robert A. Richard

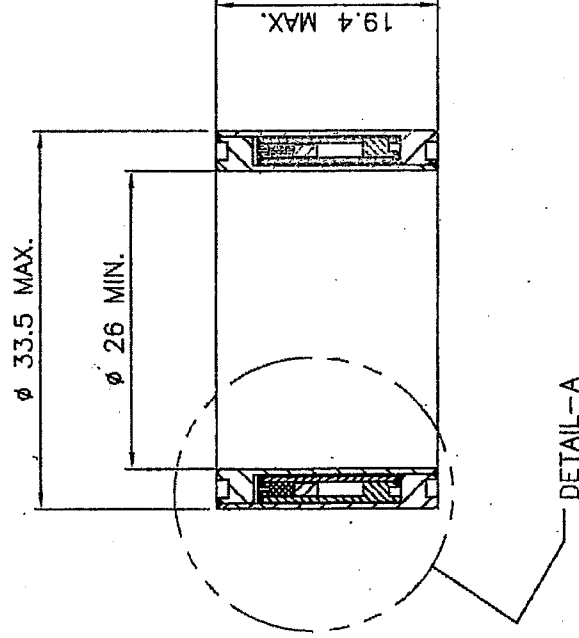
Deputy Associate Administrator for Hazardous Materials Safety

Revision 3 - Issued to update corporate name and to extend the expiration date.

Item	Description	Material	QTY
1	OUTER SHEATH	STAIN.STL.	1
2	INNER SHEATH	STAIN.STL.	1
3	CELL OUTER	STAIN.STL.	1
4	CELL INNER	STAIN.STL.	1
5	END RING	STAIN.STL.	1
6	PACKING RING	STAIN.STL.	1
7	ACTIVE MATERIAL		A/R
8	CERAMIC FIBER (OPTIONAL)		A/R



DETAIL-A
SCALE 4/1




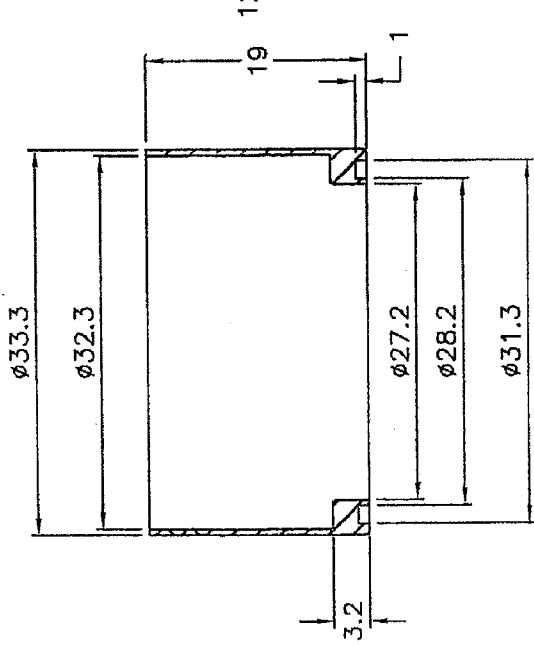
APPROVALS	
<i>R. W. W.</i>	9 Jan 04
<i>R. P. D.</i>	15 Jan 04

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

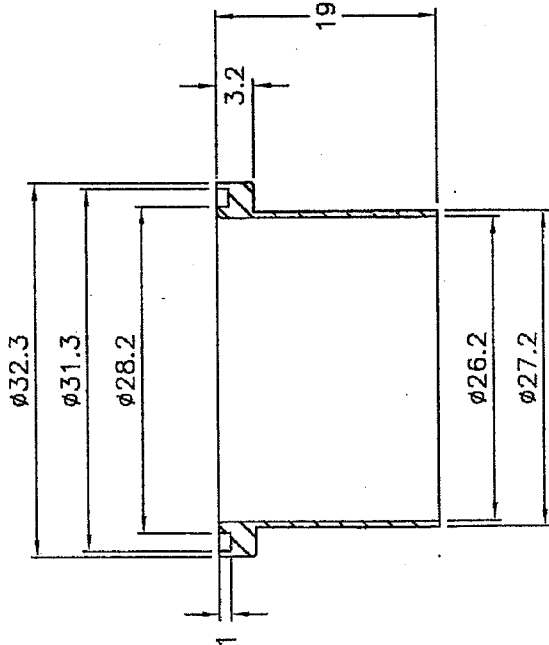
X ± 0.5
X.X ± 0.1
X.XX ± 0.05
ANGULAR $\pm 5^\circ$

INTERNAL ∇
EXTERNAL ∇

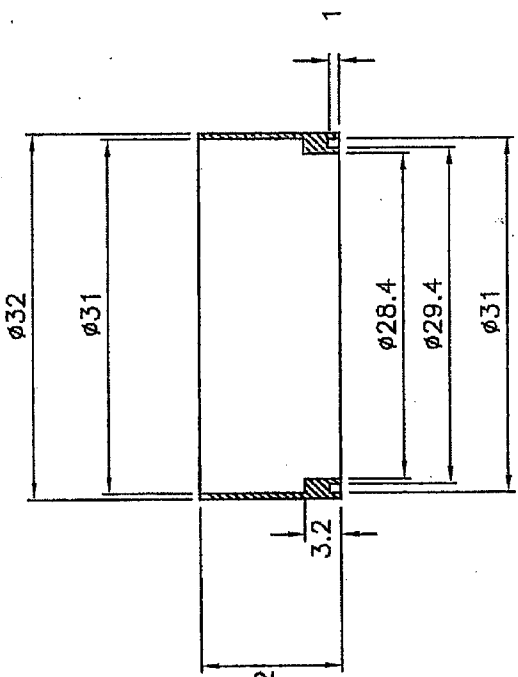
 40 NORTH AVE. BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
TITLE X20 CAPSULE ASSEMBLY		REV B	
SIZE A	DWG. NO. RBA11120	SCALE: NONE	
SHEET 1 OF 2		SHEET 1 OF 2	



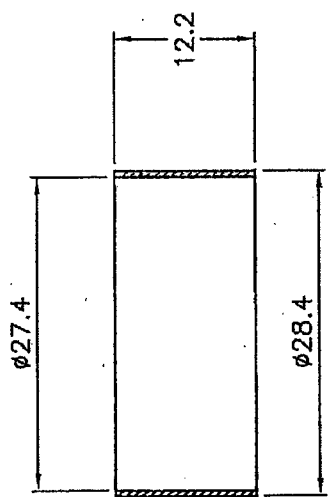
1 OUTER SHEATH



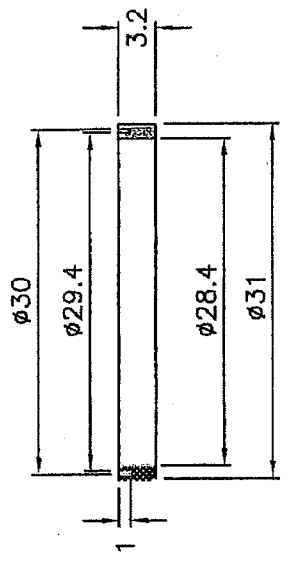
2 INNER SHEATH



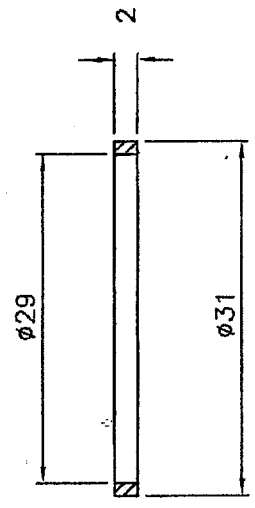
3 CELL OUTER



4 CELL INNER



5 END RING



6 PACKING RING



DESCRIPTIVE
DRAWING

TITLE X20 CAPSULE ASSEMBLY		REV B	
SIZE A	DWG. NO. RBA11120	SHEET 2 OF 2	
		SCALE: NONE	

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

X	±0.5	INTERNAL	±0.1
XX	±0.1	EXTERNAL	±0.05
XXX	±0.05	ANGULAR	±5°

ERF #	753
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CERTIFICATE NUMBER: USA/0659/S-96, Revision 3

ORIGINAL REGISTRANT(S):

Ms. Lori Podolak
Product Licensing Specialist
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

Ms. Cathleen Roughan
Director, Regulatory Affairs and QA
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

Mr. Michael Fuller
Regulatory Compliance Associate
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803